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COMMENTS OF REC NETWORKS
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Before The
FEDERAL COMMUNICATIONS COMMISSION
WASHINGTON, D.C.

In the matter of)
)
) MB Docket No. 04-233
Broadcast Localism)
)

EXECUTIVE SUMMARY

REC Networks has been an advocate for the Low Power FM (LPFM) radio service dating back to the original petitions for rulemaking. Today, REC continues to be the leading provider of information and engineering data to LPFM applicants, prospective applicants and stations. REC is also involved in spectrum issues that would impact the access of broadcast bands to private citizens, especially in our Area of Interest of Southern California, Arizona and Nevada.

In our comments, REC will answer questions addressed by the Commission in their *Notice of Inquiry* regarding possible changes to the Commission's Rules in relation to harmonizing the LPFM and translator rules to promote localism. We will also answer the Commission's inquiry on the impact of translators of the future of the LPFM service, especially the impacts caused by the translator applications that were filed during a filing window in 2003.

Some of the rule changes that we will recommend include:

- A "limited primary status" for LPFM stations that strikes a balance between allowing new full power (primary) FM services while preserving vital community-based LPFM and Class-D secondary services.
- Optional use of contour overlap methodology for LPFM stations.
- Use of contour overlap rules to protect LPTV, TV Translator and Class A Channel 6 stations.
- Retain the LPFM local applicant requirement on a permanent basis.
- Support for our separately filed *Petition for Rulemaking*, which asks for removing the "sub-secondary" status of LP-10 stations, changing the way that LPFM stations protect translators and giving LPFM the same level of access to Channel 200 (87.9) as Class D educational stations and translators are entitled to.
- New policies for translator applicants that prevent the "frivolous" applications filed during the 2003 window.
- Nationwide ownership limits on translators and non-commercial educational FM stations.

- Harmonizing the protections between LPFM and translator stations.
- Elimination of IF protection requirements for LPFM stations.
- EAS requirements for satellite-fed translators.
- Policy changes for future translator filing windows.
- Policy and rule changes related to FM Table of Allotments including electronic filing of comments and extensive changes to the "Tuck" criteria.

In addition to these rule changes, we will also address revisiting the Channel 6 protection criteria and establishing separate criteria for DTV Channel 6 stations as we believe that liberalizing the Channel 6 rules could increase the availability of LPFM channels in some areas.

We will also address issues with the FM Table of Allotments and will propose changes that will protect the provision of full power FM services in rural areas. We will also propose a new 1 kW class of service that will be available in rural areas and at first, to communities that do not currently have a full power FM allotment. We will also propose filing fees for filing petitions for rulemaking regarding allotments.

We will also discuss the re-allotment of Channel 6 spectrum to sound broadcasting and also address Low Power AM (LPAM).

Before The
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In the matter of

Broadcast Localism

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COMMENTS OF REC NETWORKS

1. REC Networks ("REC") is a supporter of locally owned and diverse radio. REC currently operates several Internet only radio stations. REC also operates several websites including the original LPFM Channel Search Tool¹. REC Networks also represents the interests of independently owned Low Power FM ("LPFM") broadcast stations and their listeners. REC also follows issues that involve the availability of media in rural and underserved areas.

2. REC has reviewed the above captioned *Notice of Inquiry* (NOI) and we will address the issues raised in the NOI regarding translators and their impact on the Low Power FM (LPFM) service. REC will also address other issues raised in the NOI as well as make recommendations on rule changes to protect local independent broadcasting.

A. Promoting LPFM Further

3. REC feels that some significant rule and policy changes need to be made to not only promote the creation of new LPFM voices but to also maintain a level of protection for existing LPFM stations.

4. Limited Primary Status for LPFM Stations. REC has developed a concept called "Limited Primary Status" (LPS) for LPFM stations. Under the current secondary status rules, LPFM stations are subject to displacement due to change applications, proposed rulemakings and foreign actions. Under LPS, in the event of an application or a rulemaking that would cause the

¹ - <http://www.recnet.com/lpfminfo>

protected service contour of the full power FM station² to overlap the service contour of the LPFM station, permit or application, the LPFM station would be protected from displacement from domestic full-power FM stations if an alternate channel that would provide the LPFM with "equal or superior" characteristics is not available. LPS will help preserve the continuity of "hometown" LPFM stations while striking a balance with the desire of full power FM broadcasters to change their facilities. A full description of LPS can be found in Appendix A of this filing.

5. Eliminating the LP-10 "sub-secondary" Status. Now that the LP-100 filing windows have been completed and in light of the recent translator filing window, we need to reexamine the original rules regarding the status of LP-10 stations. Under current rules, LP-10 stations may be displaced by translators³ and even LP-100 stations⁴. In a separate *Petition for Rulemaking*, REC has requested that the Commission amend Parts 73 and 74 to place LP-10 stations on an equal footing with LP-100 stations⁵. This means that LP-100 and translator stations would be required to protect LP-10 stations the same way they protect LP-100 stations today. We feel this rule change will position the LP-10 service as a more stable service and that potential LP-10 applicants can have some assurances that their stations can not be displaced by other secondary users. We also point out that nothing in our proposal should preclude an existing LP-10 licensee from being able to upgrade their station to LP-100 in a future filing window.

B. LPFM's Status to Translators

6. REC acknowledges the Commission's concern regarding translators and the desire to harmonize the rules between LPFM and translators to enhance localism. We feel that the proliferation of full power FM stations across the country in light of Docket 80-90 have eliminated the need for most translators, especially in areas where translators cover the city grade contours of other full power stations.

² - 60dBu (50,50) for all station classes except B, which is 54dBu and B1 which is 57dBu.

³ - §74.1204(a)(4)

⁴ - §73.807(a)

⁵ - REC Networks Petition for Rulemaking at 14.

7. REC feels that the recent window that has resulted in over 13,000 non-reserved band FM translator filings⁶ has impaired the future growth of LPFM stations in a considerable number of communities. In a study conducted by REC, we have concluded that nationwide, about 16% of all census designated communities serving 32% of the nation's population that would otherwise have LPFM channels available in their community prior to the opening of the translator filing window have been precluded because of the filing window. Even more disturbing, of the Top-100 Census communities where LPFM channels were available prior to the translator window, 58% of those communities representing 66% of this population group have been denied an LPFM future due to these translator applications.

C. The "Great Translator Invasion"

8. We are also extremely concerned about the conduct of certain applicants during this filing window. We do note that out of the 13,300 applications filed, over 5,000 of these applications were filed by two organizations, Radio Assist Ministries and Edgewater Broadcasting. Both of these organizations have the same principal. We are now extremely concerned because now it appears that this organization is allegedly selling their singleton applications and construction permits to other organizations for significant amounts of money.⁷

9. REC feels that the Commission should be very concerned about the high volume of applications that were filed during that window, especially from non-commercial educational organizations. Many of these applicants, such as Radio Assist and Edgewater, had no full power broadcast holdings at the time while others are acquiring translators that are a significant distance from their primary stations. We feel that many of these individuals and organizations have filed for these construction permits either to sell or "traffick" them to others or they are banking on the

⁶ - See *FM Translator Auction Filing Window and Application Freeze*, Report No. AUC-03-83-A (Auction #83), DA 03-359, released February 6, 2003.

⁷ - See *Edgewater Broadcasting*, File Number BAPFT-20040708AAW, which is assigning 3 construction permits and 6 pending applications to Horizon Christian Fellowship in exchange for \$147,000. Also see *Radio Assist Ministry*, File Number BAPFT-20040708AAJ, which is assigning 2 construction permits and 9 pending applications to Horizon Christian Fellowship in consideration for \$72,000. See also, *Edgewater Broadcasting*, File Number BAPFT-20040708ABT, which is assigning a single construction permit in consideration of \$10,000. See also *Edgewater Broadcasting*, File Number BAPFT-20040720ADF, which is assigning two construction permits to IHR Educational Broadcasting in exchange for the construction permit of KBPU(FM) De Queen, AR and a translator.

outcome of any rulemaking that would result from the petition of Calvary Chapel of Twin Falls, Inc. to allow for translators in the non-reserved band to be fed by satellite as reserved band translators are⁸. On the some of the original applications that were filed by these organizations, we had found that organizations that were listed as "non-commercial" were specifying that they would rebroadcast a commercial station. REC had contacted a couple of stations here in our area of interest and we had found that either the stations did not consent to their signal being rebroadcast by the translator or that permission was given for one translator even though multiple applications were filed. We do note that not all applicants engaged in this activity.

10. Therefore due to this land-rush compounded by the hope that the rules will change to allow translators in the non-reserved band to be able to be satellite-fed⁹, we saw an extremely large number of applications. REC feels that in order to support localism, we first need to make some changes to the rules relating to translators.

D. Proposed Rule Changes to Translators

11. Primary station designation. One of the biggest mistakes made during the 2003 translator filing window was that applicants were not required to designate a primary station but they had to enter one on the application for which we believe was to satisfy an edit on the CDBS application. REC feels that Commission policy be changed to require that translator applicants must designate on the initial short form application the station they intend to rebroadcast.

12. Primary station consent. Applicants for translators that are not the licensee of the primary station that is being proposed to be retransmitted must include a statement signed and notarized by an official of the station being retransmitted certifying that translator applicant has permission to retransmit the primary station. Based on applicant behavior in the last window, we feel this documentation is now necessary.

13. Financial and site placement qualification. Even though we feel that an applicant should be able to expand at a reasonable pace, applicants who file an excessive number of applications should be required to show proof that they are financially qualified to build every

⁸ - RM-10609.

single facility they had filed applications for without having to raise funds by trafficking applications and construction permits. In addition, excessive filers should be required to show that permission to use a particular site has been secured by the site owner.

14. Ownership limits. REC supports a nationwide limit on translator ownership. We feel that an ownership limit should follow a formula that encourages the establishment of regional translator networks in underserved areas while discouraging the use of satellite and microwave fed translators unless they are absolutely needed to fulfill the need for a particular community. REC suggests a nationwide ownership of 60 "points". Each translator that is licensed to the licensee of the primary station counts as 1 point, each translator that is licensed to a party other than the licensee of the primary station counts as two points and each "distant-translator"¹⁰ fed by satellite or microwave counts as 3 points¹¹. We feel that this ownership limit allows public radio to be able to maintain a statewide network of daisy chain fed translators, local governments that subsidize TV and FM translators in their communities can maintain operate up to 30 FM translators in their jurisdictions and in the event that public radio networks need to depend on satellite to bring coverage to a small number of remote areas, they have the flexibility to add these translators.

15. "Level playing field" protection to LPFM. Currently, LPFMs are required to protect translators on co-channel, first adjacent, second adjacent, third adjacent and IF channels¹² while translators are only required to protect the co-channel and first adjacent channels of LP-

⁹ - RM-10609.

¹⁰ - A "distant translator" is considered one where the primary station is in a different state and at least 400km from the primary station. Such a station is not able to provide a "local" service.

¹¹ - Due to the geography of the region, satellite or microwave fed translators in the state of Alaska would count as 1 point.

¹² - §73.807

100 stations¹³ (LP-10 is provided no protection from translators¹⁴). We feel that a balance needs to be reached between translators and LPFM on protection.¹⁵

16. Eliminate "IF" protection requirements. REC would like to see the rule that exempts protection to the IF channels be increased from 100 watts to 101 watts¹⁶ and also apply it to LPFM stations. This would in turn eliminate the requirement that any station with an ERP of 100 watts or less (instead of the previous rule of less than 100 watts) not require protection to IF channels. With the advanced design of FM receivers and the very small blanketing contours of LPFM stations and lower powered translators, we do not feel that there will be an increase in IF interference versus the 99 watt limit in force today. With this, we are requesting that the LPFM rules be changed to eliminate all requirements to protect the IF of domestic full power and translator stations. Foreign protections will be handled per international agreements.

17. Second adjacent protection towards LPFM. In order to bring translators to a more level playing field with LPFM as well as to accommodate the In-Band On Channel (IBOC) digital audio broadcasting (DAB) technology, REC is asking that the Commission impose second adjacent channel protection to LPFM stations from translators¹⁷. This will put the translator rules closer in harmony with the LPFM rules and it will protect both LPFM and translators that make the decision establish digital transmissions in the future.¹⁸

¹³ - §74.1204(a)(4)

¹⁴ - We propose translators protecting LP-10 stations in 5 preceding, as well in a separate *Petition for Rulemaking*.

¹⁵ - In our *Petition for Rulemaking*, we also propose that translators be classified into 8 different subclasses based on the size of their service contours. Translators are currently classified into 3 different subclasses.

¹⁶ - §74.1204(g)

¹⁷ - We do note that this is a change in position by REC since our comments in RM-10803. In order to secure a digital future for LPFM stations who wish to transition to the HD Radio technology in the future, their station must be protected. We continue to maintain a position that LPFM stations should not be required to install equipment to transmit in a digital format.

¹⁸ - We are aware at this time, Congress is considering S.2505, the Low Power Radio Act, which if passed would eliminate the third-adjacent channel protection requirement by LPFM stations in relationship to full power and translator stations. Because this legislation is still pending, we are not proposing any changes to the third adjacent channel at this time. We feel that the imposition of second adjacent channel protection to LPFM stations from translators can be done independent of the outcome of S.2505 and it's subsequent Commission rulemaking.

18. Local EAS requirements for distant translators. One of the major public interest/localism drawbacks of satellite-fed distant translators is that they are not required to be equipped with a local EAS receiver and decoder. While we recognize that translators are permitted to originate local messages in the event of major emergency¹⁹, translators are not required to install local EAS equipment. We feel that a translator rebroadcasting a nearby station is capable of providing a form of EAS service to the translator's service area through the primary station. However in the case of a distant translator, we do not feel the primary station is capable of doing that. While the primary station of a distant translator will be able to properly communicate national EAS messages, without local EAS equipment, it is not capable of informing of local brush fires, storms, hurricanes, tornados, hazardous material incidents, flash flood warnings and Amber alerts. This is a capability that LPFM has. REC is asking that distant translators be subject to the same EAS requirements that LPFM is currently subject to.

E. Filing Windows

19. Combined LPFM and Translator Filing Windows. Due to the secondary nature of both LPFM and translator stations, the Commission may want to consider combining the filing windows of both LPFM and translators. Filing windows should be done in only a select number of states at one time.

20. One Channel Per Customer. In the LPFM filing windows, applicants were limited to requesting only a single channel. In the translator filing window, there was no restriction on the number of applications one organization can file in a single area. Some applicants filed as many as 9 different applications for the same site. REC feels that the Commission should keep the "one channel per customer" rule for LPFM. For translators, the "one channel per customer" rule would apply to each primary station being rebroadcast. This allows a local government or TV Tax District to be able to file multiple applications to bring FM services into their underserved areas.

¹⁹ - §74.1231(g)

21. Mutually Exclusive Applications. In the event that in a combined window, LPFM and translator applications are mutually exclusive, the local LPFM station would have spectrum priority over the translator. If multiple LPFM stations are mutually exclusive, then the normal MX application process will apply.

22. Amendments to pending applications. In the event that an LPFM application is mutually exclusive with a translator, the translator applicant is not permitted to amend their application to convert to a LPFM application.

23. Trafficking of Applications. As we have seen in the last translator filing window, we need to seriously address the issue of the trafficking of translator construction permits and even applications. Some of these "paper" assignments have been going for as high as \$10,000 each. We feel this is a serious abuse of the public spectrum and it needs to be stopped immediately. We are very short of advocating an overall ban on all transfers and assignments of translator stations except in cases where the translator is owned by the primary station and the primary station is being transferred or assigned or in the case of non-commercial stations, there is a change in the board that requires an application. If the current licensee of a translator can no longer operate the station, then the license should be surrendered for cancellation and the spectrum recovered for a potential local LPFM station or another translator.

F. Preference for Local Stations

24. In the NOI, the Commission asks, "How do our policies for translators affect the availability of spectrum for LPFM and should we change any of our rules to give a preference to entities with a local presence and/or local programming? If so, How"? REC recognizes that translators to provide a vital service into underserved and unserved areas. However, when there is a desire for a local organization to serve the area, then the area is no longer underserved therefore there is less of a need for services that are designed to provide service into underserved areas.

25. REC recognizes the services provided by nearby translators. Many times, these are translators of nearby commercial and non-commercial FM stations that are usually brought to a community that is otherwise terrestrially shielded from the primary station. These translators

are usually operated by individuals in the community, private corporations, cooperatives or by government entities as either a public service or a tax district. These nearby translators are able to provide a form of baseline local service to the translator's community of license as many times, the translator is in the same county (or group of counties) as the primary station therefore EAS messages relating to regional incidents including Amber Alerts would be valid for the translator.

26. "Distant Translators" are those where the primary station is at least 400km away and in a different state. Distant translators usually operate in the reserved band however it is possible that a non-reserved band translator may be carrying a distant signal by rebroadcasting a distant translator in the reserved band. The definition of "distant" applies to the ultimate primary station that is being rebroadcast. Therefore a non-reserved band translator that is retransmitting another translator over the air, which is rebroadcasting an out-of-state station thousands of miles away is still considered a "distant translator" even though they are not directly satellite fed.

27. REC feels that these distant translators are not capable of providing any kind of a local service due to the extreme distance to the main studio. We feel that a local signal should have priority over a "distant" signal. Therefore we feel that LPFM stations should have spectrum priority over distant translators and therefore should be able to displace a distant translator if the LPFM can make a showing that no other channel is available for LPFM use.

28. We are concerned that even some non-commercial broadcasters who own an excessive number of full power stations use them to carry mostly a national satellite service. These full power NCE broadcasters will then set up smaller translator networks rebroadcasting the regional full power FM stations²⁰. Even though these full power FM stations have local EAS requirements, many of them operate as "satellite" stations with main studio waivers. REC feels that the Commission should look into rules that not only look at the location of the primary station, but also look at the origination point of the program content. These nationwide satellite services are still a threat to localism as many of them provide a "bare minimum" service and may not necessarily meet the needs of the local community, especially the extended community

²⁰ - One example of this is Educational Media Foundation (EMF), which operates two nationwide satellite services "K-Love" and "Air 1". These two services are broadcast on many full power and translator stations. As of October 2002, EMF had 105 full power FM stations across the country.

served by the (legally local) translator. REC feels that rules allowing LPFM stations priority over translators operated by licensees who exceed the number of translators shown in 14 preceding or has full power NCE-FM stations exceeding the national limit we proposed in MB Docket 02-277.²¹

29. Overall, we feel that Commission policy should support that a local station should have priority over a distant station and that a local station should have spectrum priority. Major NCE networks such as those operated by Calvary Chapel of Twin Falls, Educational Media Foundation and American Family Association can be heard through alternate methods such as on-line streaming or via direct-to-home satellite²².

30. Until the Commission amends the rules, we feel that there should be a temporary freeze of all new issuance of construction permits that were applied for during the 2003 translator window. The more translators that come on the air will make it more difficult to get more local LPFM stations on the air. REC also feels that it is appropriate to designate for hearing any applicant who, during the translator filing window filed at least 100 applications and has no full power broadcast holdings (or no holdings within "over the air" range of the translators). We feel that the Commission should question the candor of these applicants for (1) the primary stations indicated on their first (short-form) applications, (2) if applicants with common principals who filed applications under multiple corporation names did so in a manner that would not be consistent with Commission's rules, policies or federal law, (3) if the applicants are financially capable of constructing all stations applied for and be able to operate them for a minimum of one year (without proceeds from the sale of permits applied for in the same filing window) and (4) if the applicants had secured the proper permissions from site owners as well as any local zoning, electrical and building permits required to construct a station. We feel that any applicant who can not satisfy this inquiry to the Commission's satisfaction does not have the candor to be a Commission licensee. Some of the spectrum freed up as a result of

²¹ - We recommended an "ownership cap on full-power NCE stations of 40 stations, of those 40 stations, 30 of them must be in the same state. This will permit large statewide networks such as Minnesota Public Radio to operate their statewide networks consistent with the public interest."

²² - Audio programming of Calvary Chapel of Twin Falls and American Family Association as well as other "satellators" are carried on the Dominion Sky Angel DTH satellite service.

the dismissal of licenses, permits and applications as a result of this inquiry can be recovered for local (LPFM) use.

G. Changes in the LPFM Rules to Support Localism

31. In various other rulemaking dockets, we have brought up various different concepts for promoting localism, this includes even changing the LPFM service rules to better meet the needs of the local community.

32. Flexible power levels. Current rules place LPFM stations at two set power levels, 10 watts and 100 watts²³ and 30 meters HAAT. REC feels that LPFM stations should be allowed to be placed in urban areas with power levels as low as one watt and utilizing directional antenna patterns and prohibited overlap criteria to determine protection to full power FM, LPFM and translator stations. Translators (including distant translators) are able to be "squeezed" into certain areas that LPFM stations can not get into, we feel that LPFM applicants who take the additional steps to do a contour study should be able to drop in a lower powered LPFM station if it does not overlap. We do feel however, that the existing distance spacing criteria remain in force for those who do not want to borne the expense of doing an overlap study. In addition, REC has proposed in a separate Petition for Rulemaking, a new criteria for determining how much protection should be given to translators. This will be done by increasing the number of "sub-classes" based on the service contour of the translator. Under the current rules, translators can fall into one of three subclasses. REC proposes to increase the number of subclasses to eight. This will allow LPFMs to be placed into locations that can still protect translators but because of current rules, the translator is overprotected.

33. Access to "Channel 200". In our *Petition for Rulemaking*, we have asked that LPFM stations be afforded the same opportunity to access Channel 200 (87.9 MHz) as Class D Secondary stations.

²³ - We note that LPFM stations within 150km of the common border with Mexico may only operate a maximum of 50 watts ERP. Even though these stations are operating at half power, they are currently required to meet LP-100 distance spacing criteria.

34. Access to "Channel 200" in border areas. REC feels that the Commission should negotiate agreements with Canada and Mexico that would allow for low power use of 87.9 in the border coordination zones. Such use of Channel 200 would be permitted in situations where the 15 dBu interference contour [50,10] does not cross the international border. For an LP-100 station, this means stations would be able to be as close as 105km from the international border. Protection to Channel 6TV broadcast stations would also be required.

35. Make the "Local Applicant" Rules Permanent. Section §73.853(b) of the Commission's Rules requires that within the first two years that LP-100 and LP-10 stations are made available, applicants must be local²⁴. REC is concerned that if the "local applicant" requirement is removed for the next filing window, there is a potential of non-local influences applying for licenses and basically locking up channels for future organizations. We feel that retaining the criteria for a "local applicant" for all filing windows will protect localism in the LPFM service for years to come.

H. Current LPFM rules significantly overprotect LPTV stations

36. Even though REC feels that the Commission should look at new distance spacing rules for TV Channel 6 as it relates to Digital TV (DTV) stations and a reconsideration of existing Channel 6 spacing rules, we will address that in Subpart I of this filing. In this subpart, we will address changing the rules on how LPFM stations protect current LPTV, TV Translator and Class A TV Channel 6 stations.

37. In the *Memorandum Report and Order* of MM Docket 99-25, the Commission added rules that protect LPTV and Class A stations on Channel 6²⁵. We note that the current rules for FM translators²⁶ does not specifically address LPTV and Class A stations. The

²⁴ - A "local applicant" considered if (1) the applicant, it's local chapter or branch is physically headquartered or has a campus within 16.1 km (10 miles) of the proposed site for the transmitting antenna, (2) it has 75% of its board members residing within 16.1 km (10 miles) of the proposed site for the transmitting antenna or (3) in the case of an applicant proposing a public safety radio service, the applicant has jurisdiction within the service area of the proposed LPFM station.

²⁵ - MO&O at 42.

²⁶ - §74.1205(c)(3).

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protections the Commission has given assumes that each LPTV station operates at 3kW at 610 meters above average terrain (HAAT). This assumes a Grade-B contour of 84.7 km²⁷. In fact, out of 220 LPTV, TV Translator and Class-A TV, only 5 stations actually have Grade B contours of over 80 km. The field strength of stations are broken down as follows²⁸:

Distance to Grade-B Contour in kilometers (48 dBu [F 50,50])								
0-10	11-20	21-30	31-40	41-50	51-60	61-70	71-80	81-over
17	56	51	31	20	24	13	3	5

38. Let's look at a real world example here. In Pahrump, Nevada, Channel 211 (90.1 MHz) clears all radio broadcast stations including on the third adjacent channel. The nearest full power TV Channel 6 station is KMOH in Kingman, Arizona is 198 km away (133 km required for LP-100). There are LPTV stations in Baker, California (86km away), Indian Springs, Nevada (54.7km away) and Mercury, Nevada (47km away). In order to clear these stations, the LP-100 must be spaced at least 91km away. Let's take a look at these station's actual facilities:

Facility ID	Call	City	kW	Max HAAT	Grade B Contour	Distance
3615	K06JL	Baker, CA	0.057	707	47 km	86 km
28559	K06KE	Indian Springs, NV	0.005	185	13 km	54 km
48793	K06IT	Mercury, NV	0.101	362	38 km	47 km

Based on those distances, if we apply the same values that the MO&O used to determine the interference contour of the LPFM station, we would use an interference contour of 73 dBu [F 50, 10]. For an LP-100 station, that would be 2.6 km (we will round it to 3 km). Based on this, if we were to use actual overlap theory to protect these three LPTV stations, we would come up with the following results:

Facility ID	Call	City	Grade B Contour	Distance	Required to clear	Clearance
3615	K06JL	Baker, CA	47 km	86 km	50 km	+ 36 km
28559	K06KE	Indian Springs, NV	13 km	54 km	16 km	+ 38 km
48793	K06IT	Mercury, NV	38 km	47 km	41 km	+ 6 km

Therefore, using more realistic protection for these stations, the LPFM would be able to operate.

²⁷ - Based on a service contour at 48 dBu (F 50, 50 curves).

²⁸ - REC's field strength measurements are based on the LPTV station's ERP and maximum HAAT measured using the FCC's CURVES program.

39. REC's proposed change to the "Channel 6" Rules: When the Commission created the LPFM service, when it comes to Channel 6, the Commission wanted to reduce the "filing burden"²⁹ upon LPFM applicants, REC has been a supporter many of the simplified methods that are used in today's rules as they relate to other radio stations. However, in the case of Channel 6, we feel that because of the minimal number of Channel 6 LPTV, TV Translator and Class A stations (collectively "LPTV stations"), we feel that as a database provider³⁰, that it is not burdensome to provide to our users the Grade-B contours of these 220 LPTV stations on Channel 6. For this reason, we are asking that the Commission use the following guideline for determining protection to LPTV stations:

LPFM Interference Contour based on channel (rounded to the nearest km):	plus Channel 6 LPTV, TV Translator and Class A Grade-B contour:
LP-100 Channel 201 - 8 km Channel 202 - 7 km Channel 203 - 6 km Channels 204 & 205 - 5 km Channels 206 through 212 - 3 km Channels 213 through 217 - 2 km Channels 218 through 220 - 1 km	The maximum 48 dBu (F 50,50) contour assuming non-directional facilities measured to the farthest lobe. Distance rounded to the nearest kilometer.
LP-10 Channel 201 - 5 km Channel 202 - 4 km Channels 203 through 205 - 3 km Channel 206 - 2 km Channels 207 through 220 - 1 km	
<i>For example: For a LP-100 station on Channel 205, if there is a Channel 6 LPTV, TV Translator or Class A station with a maximum Grade B contour of 26km, then the LP-100 station must be spaced at least 31 km. (LPFM: 5 + LPTV: 26 = 31 km)</i>	

40. Full Power TV Stations. For these specific rules, we only address the protection of LPTV, TV Translator and Class-A TV stations. We are not proposing any specific changes to the current distance spacing tables as they relate to full power TV stations.

²⁹ - See *Creation of a Low Power FM Radio Service*, MM Docket 99-25, R&O at 114.

³⁰ - REC has been providing a free on-line LPFM Channel Search tool that predates the FCC's LPFM Channel Search Tool operated in association with the original filing windows.

I. Protection of TV Channel 6 by reserved-band LPFM stations

41. As we go through the DTV conversion, we need to reexamine our current rules regarding protection FM radio gives to Channel 6. Not only for LPFM, but also for full power FM and translators.

42. Current rules are based on 1970's TV technology. The current Channel-6 rules date back to 1985. Many of the concerns about Channel 6 stem back to older televisions of inferior design. We note that back in 1985, the Electronic Industry Association (EIA) stated that 50% of all color televisions purchased 15 years ago (in 1970) are still in service³¹. If we were to do that study today, it's very highly unlikely that many 1970-era sets are still in service. The 1985 *Report and Order* also does not anticipate many of the changes in television broadcasting that prompted consumers to replace their 1970's-era television receivers. Features such as MTS stereo, closed captioning , cable-ready tuning, composite video inputs (for DVD players) and the V-Chip have prompted consumers to purchase new television sets to have the latest "features".

43. The decline of over the air reception. When the 1985 *Report and Order* was released, the penetration of Multichannel Video Programming Distributors (MVPDs) was not as high as it is today. With the advent of the delivery of local channels through digital cable³², MMDS and Direct Broadcast Satellite, the number of consumer devices that are actually tuning in the 82-88 MHz range to receive a broadcast station licensed to operate on Channel 6 has greatly reduced. The decline of the use of over the air reception devices tuned to Channel 6 spectrum along with technological advances in analog NTSC receiver technology, reserved band interference to viewers of a TV Channel 6 station's program output has been significantly reduced over the past 20 years.

³¹ - See *In the matter of Changes in the Rules Relating to Noncommercial Educational FM Broadcast Stations*. Docket 20735, FCC 85-328, 58 RR 2d 629, 50 FR 27954 at 13.

³² - We note that many cable headends, especially those in urban areas, receive the signals from local television channels via microwave link instead of over the air. Therefore, there's a reduced chance of interference from a NCE-FM located near a cable headend.

44. Current rules do not take DTV into consideration. Even more importantly, the 1985 *Report and Order* did not anticipate DTV. REC feels that the Commission go back and conduct new studies relating to interference between reserved-band stations and digital Channel 6 stations. New criteria should be developed for full power FM, LPFM and translators in situations where the TV station is operating digital. We do note that National Public Radio has already published a report³³ on DTV interference to Channel 6 stations, we feel that additional studies should be done to develop criteria for FM protection to Channel 6.

45. Revised Channel 6 Rules promote Localism. REC feels that if new interference studies performed between reserved-band FM and DTV stations as well as NTSC stations using receivers of at least 1990-era technology would give a better idea of today's interference. Based on these studies, the Commission's rules should be amended to show the new protection criteria. Based on the outcome of the study, this could increase the number of LPFM and NCE-FM stations on the air³⁴.

J. FM Table of Allotments

46. The FM Table of Allotments³⁵ was created to assure a fair method of distributing commercial FM channels to each community. In order to be considered a community, it must meet certain criteria such as business, schools, churches and local government. This is done to prevent FM stations being allotted to any speck on the map. It must be a bona-fide community. REC supports this criteria. While we support this aspect of the Allotment policy, there are several allotment policies that are very contrary to supporting localism.

47. Current allotment policy favors larger facilities - The current allotment policies encourage those who petition for allotments to ask for largest facility available for a particular channel. In counterproposals where more than one mutually exclusive allotment proposal is

³³ - See *DTV Channel 6 Interference to NCE-FM Reception. Final Report*. Published © National Public Radio. <http://iris.npr.org/euonline/dtvch6/>

³⁴ - This would also address the concerns made by Calvary Chapel of Twin Falls in RM-10609 stating that satellite fed translators are necessary in the non-reserved band due to lack of reserved band availability due to TV Channel 6 issues.

³⁵ - 47 CFR §73.202

reviewed, the population served by each proposal is considered when determining which one would be more in the public interest. The main problem with this criteria is the Commission not only reviews the population served by an allotment with the city of license but within the entire service area. This includes areas within an urbanized area. REC feels that FM allotments facing counterproposals should be based solely on benefits to the city of license.

48. Allotment policy supports removing rural stations into metropolitan areas - The current allotment policy allows a licensee to propose an allotment that is mutually exclusive with their existing allotment³⁶. Such a request is not subject to competitive applications. What has been happening is that stations are using this loophole to move their rural stations into metropolitan areas. For example here in Arizona, the licensee of an FM station in Nogales filed a petition to move their station to Vail, a suburb of the metropolitan Tucson area³⁷. Another Arizona situation that is currently pending is requesting a rural allotment be changed to the campus of a military base well within the urbanized area (claiming "first aural service"). REC feels that if you want to support localism, this policy must be discontinued.

49. No ability to electronically file comments on allotment proceedings - These days, many proceedings have been "opened to the general public" through the implementation of the Commission's Electronic Comment Filing System (ECFS). However, since Table of Allotment proceedings are declared "restricted", they can not be filed through the ECFS. We can not understand why Table of Allotment proceedings require service and why they can not be filed by ECFS. Virtually anyone who is a party in an allotment proceeding has a computer and internet access. Just like with other proceedings, they can review the comments on-line or at the Commission's Research Information Center. REC feels that in this modern time, we do not need to have to "spoon feed" comments to the petitioner in allotment cases. REC feels that these proposed allotments will impact a community and therefore the community has the right to

³⁶ - See Amendment of the Commission's Rules Regarding Modification of FM and TV Authorizations to Specify a New Community of License, FCC Rcd 3870 (1989), recons granted in part, 5 FCC Rcd 7094 (1990).

³⁷ - MM Docket 00-31.

comment without having to spend \$10 or more on UPS or Federal Express³⁸ to send in a page or two of comments. REC is asking that the Commission reclassify Table of Allotment Proceedings (as well as amendments to the Air to Ground tables) as "*permit but disclose*" with no required service and allow comments to be filed through the ECFS³⁹.

50. The future of the "Tuck" Analysis - The Tuck Analysis⁴⁰ was intended to provide a policy for determining if an allotment is intended to serve an urbanized area. As well intentioned as *Tuck* appears to be, it is fatally flawed. The Tuck Analysis takes into consideration various factors to determine a community's "independence" from the urbanized area⁴¹. It looks at various issues from local newspapers⁴² to how many residents from the community commute to the urbanized area. Take Pahrump, Nevada. This community is very separated from the Las Vegas urbanized area. It would have a pristine Tuck Analysis. Yet with that, broadcast stations such as KXTE can use the Pahrump city of license to program to the Las Vegas metro and completely ignore Pahrump⁴³. REC feels that the FCC should abandon the current *Tuck* policy and establish a new policy that very closely scrutinizes not only the city of license but also the choice of transmitter site and what impact that can have on the urbanized area. REC feels that FM allotments should specify transmitter sites and reference coordinates that are as close to a community center as possible and should only be allowed the class

³⁸ - The reason for having to use the alternate delivery services is due to the security issues surrounding the U.S. Postal Service (USPS) and the very slow handling time of Commission mail that is received through the USPS.

³⁹ - In cases where an existing licensee or permit holder is being asked to change channel or class as a result of the allotment, that party should continue to be served by the party who is petitioning the change.

⁴⁰ - See Faye and Richard Tuck, 3 FCC Rcd 5374 (1988).

⁴¹ - These include the extent that people work in the community, newspapers and other media, how community leaders and local residents perceive the community identity, local government, ZIP code and separate government listings, commercial establishments and health facilities and a separate and distinctive advertising market from the urbanized area. Not all communities must meet all criteria.

⁴² - REC feels that the definition of "newspaper" is very broad in this case. Current and recent allotment proceedings have used weekly newspapers and even military base newsletters to justify the local newspaper. REC feels that the newspaper that has the largest paid circulation within the community of license should be considered the newspaper that is considered for the *Tuck* analysis.

⁴³ - The first comment ever filed by REC Networks was on an allotment case was to add a second aural service as a Class-A in Pahrump. Mostly due to the frustration out of the abuse of the city of license by the licensee of Channel 298 in Pahrump.

necessary to provide a 60 dBu signal over the community. REC recommends the following changes to the criteria for the *Tuck* analysis:

Current language: "The extent to which residents work in the larger community, rather than the specified community."

Change to: "The extent to which residents work in any community of the impacted urbanized area rather than the specified community."

The urbanized area will usually contain more than one community. By changing the language to state "urbanized area" instead of "larger community", this could prevent the misconception that the criteria only applies to the primary city in the urbanized area. With this new language, employees who work in *any* community within the urbanized area would count against the local community. Allotment proponents should have the burden to show the number of employed residents within the community of license as well as a list of major employers with the number of employees in the community of license.

Current language: "Whether the community has it's own newspaper or other media that covers the community's local needs or interests."

Change to: "Whether the newspaper that has the largest paid circulation within the community of license is also the dominant publication within all or a portion of the urbanized area and whether the community has licensed to it, a commercial full power or Class-A TV station or it is within the Grade-B contour of a commercial full power or Class-A television station from another community whose Grade-B contour does not overlap into the urbanized area."

Under today's criteria, any free "throw-away" weekly newspaper, chamber of commerce newsletter or even in one case, a newsletter from a military facility could be considered a newspaper. While these publications are available, it does not represent what the local citizens of the community of license perceive as the newspaper that they receive as their source for news and advertising. Our criteria is the newspaper with the largest paid circulation within the community of license. If the newspaper covers a significant part of the urbanized area along with this community, then it fails this criteria. The TV station criteria was designed to specify that the TV station must be either licensed to the community of license or a nearby community that provides service into the subject community but does not serve the urbanized area. This will show the potential for an independent advertising market. We specified only full power TV and Class A stations as full power TV stations have specific public interest requirements and Class A stations were required to provide a specific amount of local programming.

Current language: " Whether the specified community has its own local government and elected officials."

Proposed language: "Whether the specified community has its own local government structure such an elected mayor and council and the extent to which important community decisions are made at a local venue or from the urbanized area."

Local government can be broadly defined. A fire protection district, water board, even a school board can be perceived as "local government". We feel that a true elected government at the city or town level with a structure that calls for a specific leader (such

as a mayor) and a council of at least two persons other than the mayor. This prevents the criteria to be used for a county supervisor who has an office or resides in the community of license. If the community does not have a local government structure (such as a mayor or council), then we look at the community where the county seat is located. This is where the important decisions are made. If the county seat is not in the urbanized area, then it would meet this criteria.

Current language: "Whether the smaller community has its own telephone book provided by the local telephone company or ZIP code."

Proposed language: "Whether the state telecommunications regulator recognizes the community as it's own telephone rate center or whether the rate center that it is considered is within the urbanized area."

Many communities, including very small towns have ZIP codes. We do not feel that ZIP code is a good criteria. The presence of a post office or ZIP code is not a sole qualification for a community to be eligible for an allotment. On the telephone book issue, we now point out that not only are there competing telephone directories but now there are competing telephone companies. One telephone company may choose to publish a directory with only the community while another one may publish the listings for the subject community in the same directory as one that serves the urbanized area. We feel that a better criteria is to use the rate center. Unlike the telephone book, the rate center is determined by the state's telecommunications regulator and all telecommunications providers follow the rate center boundaries. The rate center is also what is displayed on telephone bills when calls to the community of license are made. This will determine if the community has its own identity or whether it is identified with the urbanized area.

Current language: "Whether the community has its own commercial establishments, health facilities and transportation systems."

Proposed language: "Whether the major commercial establishments and health facilities are located within the urbanized area and the availability of general public transportation within the community of license compared to any public transportation service provided between the community of license and the urbanized area."

Even though there may be some businesses in the community. Maybe a local market, general store, hardware store, etc. Where do residents go for major items? (such as chain supermarkets, big box stores, department stores, etc.) Are these stores in the urbanized area? Is there public transit available to the general public⁴⁴ within the community of license? (and non-urbanized areas surrounding the community) Or, is a most of the transit in the area concentrated on transporting passengers between the community of license and the urbanized area?

Current language: "The extent to which the specified community and the central city are part of the same advertising market."

⁴⁴ - We specify "general public" because some communities support only a "dial-a-ride" service that is available only to senior citizens and the disabled.

Proposed language: [Delete criteria]

We feel that the answer to this question can be best answered in the criteria about the newspaper and television stations that service the specified community.

Current language: "The extent to which the specified community relies on the larger metropolitan area for various municipal services such as police, fire protection, schools and libraries."

Proposed language: "The extent to which the specified community relies on a community within the urbanized area for various municipal services such as police, fire protection, schools and libraries."

It may be possible that the urbanized area covers more than one county. If the community is not in the city name that is specified as the Census Bureau's urbanized area name, then it would automatically qualify. Our proposed rewording would allow for a county seat community that is not the main urbanized city name but another community within the urbanized area. For example, the Los Angeles urbanized area consists of both Los Angeles and Orange Counties. If a community in Orange County was up for *Tuck*, then taking this criteria literally, it would pass because even though the community is near the *Los Angeles* urbanized area, it does not receive any services from Los Angeles since the county seat for Orange County is in Santa Ana. Santa Ana is within the Los Angeles urbanized area. Under our criteria, the community would fail this criteria.

New criteria: "Whether the community of license can be served from a location other than the proposed reference coordinates and/or at a class lower than the one proposed where it will not result in providing city-grade service in the urbanized area."

Instead of a Class C allotment on a mountaintop that would beam a signal into the community of license but also a good portion of the urbanized area, would a C3 at a different location provide city grade coverage over the city of license but does not cover the urbanized area?

With our proposed criteria, we are no longer associating the specified community with the major metropolitan city within the urbanized area but instead associating it with *any community* within the urbanized area. We also feel that subject communities should meet as many if not all of these criteria. The leeway the Commission has provided in some cases⁴⁵ is unacceptable if localism is to be achieved.

51. "Tuck" Analysis area - Current Commission policy requires the application of the "Tuck" analysis in situations where the *City Grade* contour of a proposed FM Allotment covers at least 50% of the urbanized area. Even though an allotment may not have a city grade contour

⁴⁵ - See *Parker and Port St Joe, Florida*, 11 FCC Rcd 1095, para 9-11 (1996). (Community lacked local phone directory and local newspaper and was listed in urbanized Arbitron market.)

within 50% of the urbanized area, it's protected service contour could serve at least 50% of the urbanized area. We do note that in some situations, full power stations can place boosters in the areas within their service contour but out of reach of the full power facility due to terrain obstructions and provide a "city grade like" service in more of the urbanized area. For this reason, we feel that localism can be promoted if the Commission change their "Tuck" policy to extend the area being reviewed for consideration under "Tuck" to include the entire service contour and not just the city grade contour.

52. Out of Town petitioners - Every so-often, we see an influx of petitions to amend the Table of Allotments. In this modern day of computers, all someone needs to do is run a computer program and any "holes" will show up. All someone needs to then do is file a petition for rulemaking and then the channel is assigned. Not only that, it also locks that channel for any future LPFM use. Many of these petitions come from individuals and organizations that are not local to the proposed location.

53. Filing Fees for Petitions. REC feels that the FCC needs to control the number of frivolous allotments by imposing the following procedures on filing petitions to amend the FM Table of Allotments:

- Impose a filing fee. This must be paid prior to the petition being docketed. REC suggests a filing fee of \$1,000 with the exception of the new Class A1 (see below), which would be \$500.
- Require that proponent of an allotment reside within 250 km of the proposed allotment.
- Require a notarized statement that the proponent has physically visited the community being considered. The notary used should be from that community or a very nearby community.
- Limit a petitioner to a maximum of three (3) open Allotment proceedings at one time.

K. Additional Measures to Promote Localism

54. Localism Means More Voices. In the previous proceedings on media concentration and broadcast localism in most likely in this one, we will hear from the large broadcasters claiming "localism" by broadcasting public service announcements from local charitable organizations. While the station's decision to engage in such announcements is commendable, we feel that localism goes beyond giving the community a small handout and

then resume with their corporate programming, localism to us means the accessibility for more organizations and more causes to be able to put their own voice on the air, even if it just for a few hours a week on a time share station, local organizations should be able to broadcast their message without having to purchase time from a corporate station or be denied access due to the corporate owner not "agreeing" with the opinion of the organization seeking airtime. With the large corporations and the larger regional conglomerates buying out more stations, it is now impossible for a small organization to start a broadcast station and this includes NCE stations.

55. Use of TV Channel 6 for Sound Broadcasting. As a part of our agenda for localism, REC continues to support the re-allotment of the Channel 6 TV spectrum (82-88 MHz) for low power NCE FM broadcast stations. We can create 30 new FM channels in this band. These channels can be used for 10 or 100 watt LPFM stations. The spectrum 82-88 MHz is used for sound broadcasting in Japan, one of the largest suppliers of consumer electronics, therefore receivers can be easily imported. We feel that providing local service to thousands of niche broadcast stations across the country would better meet the public interest over a small number of digital TV stations.

56. Better Access to Filing Objections on License Renewals. REC recognizes that the Media Bureau is doing more to increase awareness of the license renewal process. We feel that the Media Bureau should be doing more. Specifically, we feel that filing an informal objection or a petition to deny on a broadcast renewal should be as simple as uploading a file to CDBS similar to how comments are uploaded to ECFS. We feel that the ex-parte rules should be changed where comments filed in renewal proceedings do not require service. Broadcasters are now encouraged and in some cases required to electronically file. This means they have computers. So obviously, they have access to the internet therefore they can see the filings and they would be able to respond.

57. Improvements to the Class D Service. Some of the recommendations we have made such as the Limited Primary Status concept should also be applied to Class D Secondary stations. As we have recently seen with KMIH in Mercer Island, WA, a station that has been providing a local diverse voice in the Seattle area while promoting a high school broadcasting program is now going to be displaced because of a rural to urban move of an out of state radio

station into the Seattle market. The few remaining Class D stations should be entitled to some protection, especially when it involves a rural to urban move.

58. Creation of a new Class A1 Service. While REC opposes commercial LPFM and LPAM services, we would consider a new Class A1 broadcast station. Our proposed Class A1 would be a full power service (with rules similar to Class A). The service would have a maximum of 1kW at 60m HAAT producing a 14.1km service contour at 60 dBu (50, 50). This is considered a full power FM service (not LPFM) and must protect co-channel, first, second, third and IF adjacent channels. In the non-reserved band, the FM Table of Allotments must be amended to add a Class A1 to a community. No new Class A1 allotments would be allowed within 50 km of any point on the boundary of an urbanized area. (This distance is the 40 dBu (50,10) interference contour of a full Class A1 station.) For the first 5 years of implementation, new A1 allotments will only be allowed in communities that have no other FM allotments. All class A stations that have a service contour of under 14.1 km could be downgraded to A1 with a show cause order if is needed for a drop-in allotment or to allow for the construction of an LPFM station.

59. Low Power AM. REC has already filed comments as a part of a joint filing to request that the Commission bring the Bumgartner Low Power AM (LPAM) proposal to rulemaking. We feel that LPAM can fulfill the need for increased localism in urban areas such as Detroit where in a study conducted by REC for Michigan Music is World Class!, we have noted that the only way LPFM would be possible in Detroit would involve removing not only the third adjacent channel restrictions but also the second adjacent channel restriction. REC feels however, that the removal of second adjacent channel restrictions at this time would create severe interference to LPFM stations from full power stations operating IBOC DAB. We did show that in Detroit, even though no FM channels were available, LPAM broadcasting was possible following the protection criteria described in the Bumgartner proposal. REC feels the Commission should look at LPAM as well as Channel 6 as additional spectrum solutions for urban areas.

L. Conclusion

60. REC has presented proposed changes to the LPFM and translator rules as well as recommended additional processes that the Commission should put into place to increase the number of voices that have access to the broadcast bands and assuring their ongoing access to the airwaves. We have also recommended the creation of new non-commercial and commercial radio services. All of this to encourage localism. REC does not feel that a corporate-owned broadcast station that has local news and/or broadcasts public service announcements is true localism. This is strictly their obligation as a public trustee. REC feels that the time is right to expand the spectrum to allow for more voices.

Respectfully Submitted,

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APPENDIX "A"

LIMITED PRIMARY STATUS FOR LPFM STATIONS

LIMITED PRIMARY STATUS FOR LPFM STATIONS

Under Limited Primary Status (“LPS”), an LPFM operating in the non-reserved band is afforded protection from new allotments, upgrades and other major changes made by a domestic full power FM station.

LPFM stations would remain secondary to foreign allotments. However, LPFMs should be afforded additional flexibility to develop creative methods to protect foreign allotments including being permitted to run with reduced power and/or directional antennas.

LPFM stations that are fully licensed are protected to their actual 60 dBu service contour. LPFM stations granted a construction permit and LPFM applications will be protected to their full facility assuming 100 watts at 30m HAAT.

PROPOSED LIMITED PRIMARY STATUS PROCEDURE

If a Full Power FM (FPFM) wishes to move facility or if someone proposes to amend the FM Table of Allotments and such a proposed change will result in the proposed FPFM’s 60 dBu (50, 50) service contour to overlap with the existing LPFM’s 60 dBu (50, 50) service contour, then the Limited Primary Status (LPS) procedure would be invoked.

If the LPS procedure is invoked, the FPFM station can not make their change through a “one-step” application. A rulemaking proceeding to amend the Table of Allotments is required.

If the LPS procedure is invoked, the FPFM must state in it’s petition how it plans to accommodate the LPFM station. The LPFM station must be moved to a channel of “equal or superior” characteristics.

For an LPFM station that is on a “fully spaced” channel (where the service and interference contours on the co-channel or first adjacent channels of the LPFM and any other FPFM or translator station do not overlap), another fully spaced channel must be available.

For an LPFM station that is on an “interference” channel (where the interference contour of the FPFM or translator overlaps the LPFM’s service contour on the co- or first adjacent channel), another fully spaced, “equal or superior” interference channel must be available.

The criteria for “equal or superior” interference channel is:

- A channel that meets the minimum spacing requirements for LPFM stations under the rules.
- The number of interfering stations, permits or applicants must be equal or less than the current channel.

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- For all stations, permits and applicants that have interference contours that overlap the LPFM's service contour, an exact measurement of (50, 10) field strength will be made at the LPFM antenna.
- All field strength measurements of interfering stations must be equal or weaker than on the current channel.
- A "fully spaced" alternate channel will be considered superior.

Take an example. WIHW-LP in Dover, DE. This is an LP-100 that operates on 96.1 (Ch. 241). The following station has an interference contour overlapping the service contour of the LPFM:

Chan	Call	City	kW/HAAT	Distance/ RCIC*	(50,10) Field Strength
241B	WSOX	Red Lion PA	13.5/290	124/143	40.356 dBu

If some FPFM activity takes place that would put a FPFM's service contour overlapping WIHW's service contour, the FPFM would have to find an alternate channel for the LPFM. In Dover, there are two interference channels available.

Ch. 273 (102.5) receives interference from two stations:

Chan	Call	City	kW/HAAT	Distance/ RCIC*	(50,10) Field Strength
273B	WOLC	Princess Anne MD	50/152	114/143	44.605 dBu
273B	WRFY	Reading PA	10/246	135/143	35.823 dBu

Ch. 286 (105.1) receives interference from two FPFM and one translator station:

Chan	Call	City	kW/HAAT	Distance/ RCIC*	(50,10) Field Strength
286B	WAVA	Arlington VA	41/165	140/143	39.089 dBu
286B	WIOV	Ephrata PA	25/214	127/143	40.636 dBu
286D3	W286AS	Georgetown DE	0.019/108	49/51	27.558 dBu

* - Required to Clear Interference Contour.

In this specific case, since WIHW's current channel 241 has only one interfering station while the other channels have 2 and 3 stations, there are no "equal or superior" channels available. Therefore under Limited Primary Status, WIHW-LP would be protected from displacement on Channel 241.

Keep in mind, there should be nothing that would prevent WIHW-LP to reach a universal settlement agreement with the full power station in which case WIHW-LP would move to either Channel 273 or 286 and allow the full power to take over Ch. 241.

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Now let's look at WFBO-LP in Flagler Beach, FL. The station operates on Channel 227 (93.3). It has a couple of Great Translator Invasion (GTI) encroachments that we will ignore right now since they have gone no farther than the initial application.

Channel 227 is an interference channel with one station:

Chan	Call	City	kW/HAAT	Distance/ RCIC*	(50,10) Field Strength
227C2	WPLA	Callahan FL	50/141	124/143	42.399 dBu

Let's now say that for some reason, a full power wants to overlap WFBO-LP's service contour on Ch. 227. Now we need to determine if another channel is available.

There are 4 other interference channels available at the transmitter site.

100.7 has two stations, WWRR in Brunswick, GA and a new GTI translator in St. Augustine, FL. Since this is two stations, it can not be considered "equal or superior".

103.7 (Ch. 279) is an interference channel with one station:

Chan	Call	City	kW/HAAT	Distance/ RCIC*	(50,10) Field Strength
279C1	WRUF	Gainesville FL	100/234	124/178	47.713 dBu

106.7 (Ch. 294) is an interference channel with one station:

Chan	Call	City	kW/HAAT	Distance/ RCIC*	(50,10) Field Strength
294C1	WXXL	Tavares FL	100/251	112/178	50.744 dBu

106.9 (Ch. 295) is an interference channel with one station:

Chan	Call	City	kW/HAAT	Distance/ RCIC*	(50,10) Field Strength
295C1	WKZY	Cross City FL	100/143	167/178	37.704 dBu

* - Required to Clear Interference Contour.

In this case, Channel 295 would be considered an "equal or superior" channel since it puts in a weaker interfering field strength at the transmitter location.

In this case, the LPFM would be displaced and would be required to change channels. Since there are multiple channels available that all would be legally spaced, the LPFM may take either the superior channel (295) or they should be allowed to select one of the inferior channels. Maybe, Channel 295 puts too much interference in the area where a majority of WFBO-LP's audience is. Maybe Channel 279 is better, or perhaps 294. Either way, the LPFM should have that choice.

Now let's say in the previous case, WPLA wanted to upgrade to Class C. For the purposes of this example only, let's say that WPLA can clear all other full power stations on their channel.

First WPLA would file a Petition to amend the Table of Allotments. In that Petition, WPLA would ask to substitute Channel 227C for Channel 227C2 in Callahan FL.

In the Petition, WPLA would state that the 227C at Callahan FL will create a 60 dBu service contour that overlaps the service contour of WFBO-LP on Channel 227L1 at Flagler Beach FL.

WPLA will have to make a showing that an "equal or superior" channel, Channel 295 is available. Channel 295 has an interference contour of 37.704 dBu (50, 10) from WKZY Cross City, FL at the WFBO-LP transmitter site where Channel 227 has an interference contour of 42.399 dBu from WPLA at the WFBO-LP transmitter site thus making Channel 295 an equal or superior LPFM interference channel.

WPLA will ask the Commission in the same rulemaking to modify WFBO-LP's license (or permit or application) to specify Channel 295 or another legally spaced channel.

If the FCC accepts that WPLA meets all distance spacing rules for a Class C and that Channel 295 is found to be an "equal or superior" channel for WFBO-LP, the rulemaking process continues. If the FCC analysis shows that the channel is not equal or superior, the FCC would return the petition.

In the rulemaking process, WFBO-LP is served with an Order to Show Cause. WFBO-LP is then given an opportunity to show cause why it should not be forced to move from Channel 227. This is the opportunity where the LPFM can disagree with the FCC's or the petitioner's findings. Maybe there's a "real world" reason why the LPFM can not change channels without losing substantial service area.

If the LPFM station does not respond to the order to show cause within a set number of days or the argument is not convincing, then the FCC will rule in favor of the petitioner.

In the Report and Order, the FCC will amend the Table of Allotments to substitute the C2 channel for the higher class C and order WPLA to file an application for a construction permit to modify WPLA to specify Class C operation. The FCC would also order the LPFM station to file an application for a construction permit to modify the LPFM station to either the "equal or superior" channel or any other legally spaced channel.

Additional Information on Limited Primary Status

- Only non-reserved band channels (221-300, 92.1-107.9) are in the FM Table of Allotments. For situations where the LPFM is on a reserved band (200-220, 87.9-91.9) channel, the FPFM would be required to file a petition to modify an LPFM license, permit or application when it files it's application. The FPFM would be required to identify an "equal or superior" channel (in either the reserved or non-reserved band). The FCC would follow the same "Order to Show Cause" process used on non-reserved band channels.
- We note that an extremely considerable majority of LPFM stations are in the non-reserved band.
- This Limited Primary Status can also be afforded to Class-D Secondary NCE-FM stations using the same rules we propose for LPFMs.
- Limited Primary Status LPFM and Class-D stations are not protected from foreign allotment changes. In these cases, LPFMs should be permitted to take remedial actions such as using a contour model with reduced power or antenna heights as well as use directional antennas to maintain a level of service.
- In areas where it is available, a FPFM station can consider Channel 200 (87.9 Mhz) when evaluating "equal or superior" channels for LPFM/Class D displacement.
- Even if the FPFM does not suggest Channel 200, if the channel is otherwise available and the LPFM is displaced, then the LPFM should be allowed to propose operation on Channel 200.
- FPFMs that are able to displace LPFM or Class D stations to alternate "equal or superior" channels are not required to compensate the LPFM or Class D for reasonable expenses involved in the channel change.

On the next page is a sample of what a FPFM's Petition for Rulemaking would look like:

EXAMPLE ONLY – THIS PAGE IS NOT A REAL FILING

**Before The
FEDERAL COMMUNICATIONS COMMISSION
WASHINGTON, D.C.**

In the Matter of:)	
)	
Amendment of Section 73.202 of the)	RM-_____
Commission’s Rules – FM Table of)	MB Docket 04-_____
Allotments)	
(Callahan, FL))	

PETITION FOR RULEMAKING

Supersize Broadcasting (“Supersize”), licensee of WAAA-FM, Callahan, FL pursuant to Section 1.420(i) of the Commission’s Rules hereby files a Petition for Rulemaking (“Petition”). Supersize seeks to substitute Channel 227C at Callahan FL for Channel 227C2 at Callahan FL and to modify the license for WAAA-FM to specify operation on Channel 227C at Callahan FL.

The proposed allotment would create a gain area of 520,000 persons. The proposed allotment would meet all spacing requirements of Section 73.207 of the Commission’s Rules.

The proposed allotment would create a 60 dBu (50, 50) service contour that overlaps the 60 dBu (50, 50) service contour of Low Power FM (“LPFM”) station WZZZ-LP in Flagler Beach, FL. Section 73.8XX of the Commission’s Rules require that a Full Power FM station can identify an alternate LPFM channel that is “equal or superior” to the LPFM station’s current channel and petition for displacement of the LPFM station to that channel. This is based on the number of full power and translator interference contours that overlap the LPFM station’s service contour and these station’s field strength at the LPFM transmitter site. Currently, WZZZ-LP receives overlap on Channel 227 from WAAA’s interference contour only. WAAA’s interference contour at WZZZ-LP’s transmitter site is 42.4 dBu (50, 10). An engineering study has shown that an alternate channel, Channel 295, which receives overlap from WZXY-FM Cross City, FL with a field strength of 37.7 dBu (50, 10) at WZZZ-LP’s antenna. No other station would overlap an interference contour with WZZZ-LP’s service contour on Channel 295. Supersize therefore considers Channel 295 as being “equal or superior” to Channel 227 for WZZZ-LP.

WHEREFORE, for the foregoing reasons, Supersize Broadcasting requests that the Commission grant the Petition for Rulemaking to substitute Channel 227C for Channel 227C2 at Callahan and to make a finding that an “equal or superior” LPFM channel is available in Flagler Beach, FL and to modify the license of WZZZ-LP to specify “equal or superior” Channel 295 to accommodate the upgrade of WAAA-FM.

EXAMPLE ONLY – THIS PAGE IS NOT A REAL FILING

APPENDIX "B"

IMPACT ON THE FUTURE OF LPFM STATIONS
DUE TO THE "GREAT TRANSLATOR INVASION"
WINDOW OF 2003

REC Networks - MB Docket 04-233

	Before the Great Translator Invasion				Since the Great Translator Invasion				Areas that have			
	Fully Spaced		Any LPFM		Fully Spaced		Any LPFM		lost LPFM opportunity			
	Communities	Population	Communities	Population	Communities	Population	Communities	Population	Communities	%	Population	%
Alaska	142	293,455	142	293,455	132	255,018	132	255,018	10	7.0%	38,437	13.1%
Alabama	72	201,246	231	860,724	51	161,901	211	708,692	20	8.7%	152,032	17.7%
Arkansas	150	398,113	260	772,460	94	190,523	235	599,148	25	9.6%	173,312	22.4%
Arizona	116	386,962	145	537,206	98	274,393	130	392,928	15	10.3%	144,278	26.9%
California	195	979,041	309	2,144,868	143	600,195	256	1,415,045	53	17.2%	729,823	34.0%
Colorado	88	195,306	134	486,962	69	150,689	98	195,519	36	26.9%	291,443	59.8%
Connecticut	0	0	1	30,989	0	0	1	30,989	0	0.0%	0	0.0%
Delaware	0	0	12	34,490	0	0	8	16,529	4	33.3%	17,961	52.1%
Florida	58	212,018	210	940,518	42	135,463	145	515,509	65	31.0%	425,009	45.2%
Georgia	92	268,308	302	1,470,755	52	152,561	266	788,081	36	11.9%	682,674	46.4%
Hawaii	73	228,218	80	257,087	67	193,809	77	228,504	3	3.8%	28,583	11.1%
Iowa	292	647,232	498	1,580,273	189	310,632	443	1,074,722	55	11.0%	505,551	32.0%
Idaho	79	167,992	102	332,499	57	99,942	84	191,850	18	17.6%	140,649	42.3%
Illinois	337	773,785	602	1,798,503	146	318,379	487	1,121,065	115	19.1%	677,438	37.7%
Indiana	112	335,962	249	791,489	41	87,507	177	429,741	72	28.9%	361,748	45.7%
Kansas	212	545,611	270	845,145	173	401,463	247	740,325	23	8.5%	104,820	12.4%
Kentucky	100	312,793	199	675,473	71	196,323	176	600,470	23	11.6%	75,003	11.1%
Louisiana	82	264,402	205	832,271	67	173,912	184	648,263	21	10.2%	184,008	22.1%
Massachusetts	1	3,830	14	91,109	1	3,830	8	33,191	6	42.9%	57,918	63.6%
Maryland	27	95,270	49	181,909	17	33,937	40	119,883	9	18.4%	62,026	34.1%
Maine	30	84,130	49	164,838	29	81,771	39	112,041	10	20.4%	52,797	32.0%
Michigan	177	487,181	295	1,003,835	125	310,911	237	689,790	58	19.7%	314,045	31.3%
Minnesota	261	507,989	399	1,002,821	199	325,580	386	919,250	13	3.3%	83,571	8.3%
Missouri	209	530,902	344	949,729	107	179,131	275	689,820	69	20.1%	259,909	27.4%
Mississippi	126	313,662	248	1,145,668	101	246,707	235	1,068,409	13	5.2%	77,259	6.7%
Montana	141	370,485	153	473,802	123	228,300	131	242,891	22	14.4%	230,911	48.7%
North Carolina	62	110,538	334	1,674,805	35	59,969	238	640,821	96	28.7%	1,033,984	61.7%
North Dakota	121	347,145	127	456,466	117	240,763	121	292,867	6	4.7%	163,599	35.8%
Nebraska	194	465,966	214	485,719	171	343,734	211	467,018	3	1.4%	18,701	3.9%
New Hampshire	7	19,033	29	119,343	4	15,143	22	69,909	7	24.1%	49,434	41.4%
New Jersey	3	19,146	13	60,290	0	0	4	5,980	9	69.2%	54,310	90.1%
New Mexico	89	418,732	104	480,550	72	354,113	87	371,344	17	16.3%	109,206	22.7%
Nevada	23	86,591	27	127,722	21	76,188	25	117,319	2	7.4%	10,403	8.1%
New York	148	394,632	273	657,084	90	207,965	208	424,947	65	23.8%	232,137	35.3%
Ohio	145	434,884	322	1,074,426	82	183,192	267	744,923	55	17.1%	329,503	30.7%
Oklahoma	121	256,268	315	853,998	93	216,540	255	550,293	60	19.0%	303,705	35.6%
Oregon	78	248,557	119	403,399	63	169,278	99	301,952	20	16.8%	101,447	25.1%
Pennsylvania	133	273,705	290	711,754	71	122,229	211	371,711	79	27.2%	340,043	47.8%
Rhode Island	0	0	4	19,082	0	0	4	19,082	0	0.0%	0	0.0%
South Carolina	73	266,432	201	729,843	33	100,382	157	500,494	44	21.9%	229,349	31.4%
South Dakota	145	270,766	156	308,502	137	255,375	150	292,965	6	3.8%	15,537	5.0%
Tennessee	88	470,404	261	1,293,954	22	43,405	214	943,983	47	18.0%	349,971	27.0%
Texas	312	1,040,847	603	2,584,001	244	581,062	508	1,588,211	95	15.8%	995,790	38.5%
Utah	77	143,466	112	269,235	60	97,130	98	206,311	14	12.5%	62,924	23.4%
Virginia	84	210,976	178	549,071	56	128,812	152	405,008	26	14.6%	144,063	26.2%
Vermont	28	76,413	40	108,801	17	41,547	30	65,679	10	25.0%	43,122	39.6%
Washington	86	194,191	166	734,399	58	111,580	118	371,828	48	28.9%	362,571	49.4%
Wisconsin	209	393,818	373	1,203,251	145	231,960	320	736,500	53	14.2%	466,751	38.8%
West Virginia	73	135,213	146	287,422	53	86,429	121	209,282	25	17.1%	78,140	27.2%
Wyoming	83	261,050	91	362,384	74	237,149	81	258,928	10	11.0%	103,456	28.5%
	5,554	15,142,666	10,000	35,254,379	3,912	9,016,822	8,409	23,785,028	1,591	15.9%	11,469,351	32.5%
Top 100 Commu	26	1593743	100	6742186	9	388507	42	2245543	58	58.0%	4,496,643	66.7%

APPENDIX "C"
TECHNICAL DETAILS OF CHANGES PROPOSED
IN THIS FILING

Paragraph 5 - Eliminating the LP-10 "subsecondary" class:

Revise section §73.807(a) to state:

§73.807 Minimum distance separation between stations.

(a) An LP100 station will not be authorized initially unless the minimum distance separations in the following table are met with respect to authorized FM stations, timely-filed applications for new and existing FM stations, authorized ~~LP100 LPFM~~ stations, ~~LP100 LPFM~~ station applications that were timely-filed within a previous window, and vacant FM allotments. ~~LP100 stations are not required to protect LP10 stations.~~ LPFM modification applications must either meet the distance separations in the following table or, if short-spaced, not lessen the spacing to subsequently authorized stations.

Station Class Protected by LP100	Co-channel Minimum Separation (km)		First-adjacent Channel Minimum Separation (km)		Second-Third-adjacent Channel Minimum Separation (km)	I.F . Channel minimum separations
	Interference Required	For No Received	Interference Required	For No Received	Required	10.6 or 10.8 MHz
LP10	16	22	10	11	None	None
LP100	24	24	14	14	None	None
D	24	24	13	13	6	4
A	67	92	56	56	29	7
B1	87	119	74	74	46	9
B	112	143	97	97	67	12
C3	78	119	67	67	40	9
C2	91	143	80	84	53	12
C1	111	178	100	111	73	20
C	130	203	120	142	93	28

Paragraph 5 - Eliminating the LP-10 "subsecondary" class (cont'd):

Renamed and modify Section §74.1204 as follows:

§74.1204 Protection of FM broadcast, FM Translator and ~~LP100~~ **LPFM** stations.

(a) An application for an FM translator station will not be accepted for filing if the proposed operation would involve overlap of predicted field contours with any other authorized commercial or noncommercial educational FM broadcast stations, FM translators, and Class D (secondary) noncommercial educational FM stations; or if it would result in new or increased overlap with an ~~LP100~~ **LPFM** station, as set forth below:

(1) * * *

(2) * * *

(3) * * *

(4) ~~LP100~~ **LPFM** stations (Protected Contour: 1 mV/m)

Frequency separation	Interference contour of proposed translator station	Protected contour of LP100 LPFM station
Cochannel 200 kHz	0.1 mV/m (40 dBu) 0.5 mV/m (54 dBu)	1 mV/m (60 dBu) 1 mV/m (60 dBu)

Paragraph 16 - Eliminate "IF" protection requirements.

Amend §73.807(a), (b), (c) and (d) to remove all distance separation requirements to IF channels for LP-10 and LP-100 stations.

Paragraph 17 - Second Adjacent protection towards LPFM.

Renamed and modify Section §74.1204 as follows:

§74.1204 Protection of FM broadcast, FM Translator and **LP100 LPFM** stations.

(a) An application for an FM translator station will not be accepted for filing if the proposed operation would involve overlap of predicted field contours with any other authorized commercial or noncommercial educational FM broadcast stations, FM translators, and Class D (secondary) noncommercial educational FM stations; or if it would result in new or increased overlap with an **LP100 LPFM** station, as set forth below:

(1) * * *

(2) * * *

(3) * * *

(4) ~~LP100~~ **LPFM** stations (Protected Contour: 1 mV/m)

Frequency separation	Interference contour of proposed translator station	Protected contour of LP100 LPFM station
Cochannel 200 kHz 400 kHz	0.1 mV/m (40 dBu) 0.5 mV/m (54 dBu) 100 mV/m (100 dBu)	1 mV/m (60 dBu) 1 mV/m (60 dBu) 1 mV/m (60 dBu)

Paragraph 32. Flexible Power Levels:

In relation to domestic full power stations, LPFM stations should be permitted to either use the distance spacing standards for LP-10 or LP-100 stations. In addition, LPFM stations should be allowed to opt to use a prohibited overlap criteria. If the prohibited overlap criteria is used, the ERP can not exceed 100 watts and the 60 dBu contour (50,50) can not exceed 5.6 km.

Commercial Class B stations***:

Frequency separation	Interference contour of LPFM	Protected contour of the full power station:
Cochannel	0.1 mV/m (40 dBu)	0.5 mV/m (54 dBu) plus 20 km buffer zone
200 kHz	0.5 mV/m (54 dBu)	0.5 mV/m (54 dBu) plus 20 km buffer zone
400/600* kHz	100 mV/m (100 dBu)	0.5 mV/m (54 dBu) plus 20 km buffer zone

Commercial Class B1 stations***:

Frequency separation	Interference contour of LPFM	Protected contour of the full power station:
Cochannel	0.1 mV/m (40 dBu)	0.7 mV/m (57 dBu) plus 20 km buffer zone
200 kHz	0.5 mV/m (54 dBu)	0.7 mV/m (57 dBu) plus 20 km buffer zone
400/600* kHz	100 mV/m (100 dBu)	0.7 mV/m (57 dBu) plus 20 km buffer zone

If the full power station is not a Class B or B1***:

Frequency separation	Interference contour of LPFM	Protected contour of the full power station:
Cochannel	0.1 mV/m (40 dBu)	1 mV/m (60 dBu) plus 20 km buffer zone
200 kHz	0.5 mV/m (54 dBu)	1 mV/m (60 dBu) plus 20 km buffer zone
400/600* kHz	100 mV/m (100 dBu)	1 mV/m (60 dBu) plus 20 km buffer zone

Translators:

Frequency separation	Interference contour of LPFM	Protected contour of the full power station:
Cochannel	0.1 mV/m (40 dBu)	1 mV/m (60 dBu)
200 kHz	0.5 mV/m (54 dBu)	1 mV/m (60 dBu)
400 kHz	100 mV/m (100 dBu)	1 mV/m (60 dBu)

LPFM Stations:

Frequency separation	Interference contour of LPFM	Protected contour of the full power station:
Cochannel	0.1 mV/m (40 dBu)	1 mV/m (60 dBu)
200 kHz	0.5 mV/m (54 dBu)	1 mV/m (60 dBu)
400 kHz**	100 mV/m (100 dBu)	1 mV/m (60 dBu)

* - Third adjacent channel (600kHz) protection may be eliminated based on the outcome of the Low Power Radio Act.

** - LPFM stations should be required to protect the second adjacent channel of LPFM stations that are engaged in IBOC DAB operations. In addition, LPFM stations wishing to engage in IBOC DAB must protect the second adjacent channel of other LPFM stations.

*** - Full power stations are considered "non-directional" for the purpose of this protection.

APPENDIX "D"
LISTING OF CHANNEL 6 LPTV,
TV TRANSLATOR AND CLASS A STATIONS
AND THEIR PROPOSED PROTECTIONS

REC Networks - MB Docket 04-233

Gr.B is the rounded Grade B contour for the purposes of this proceeding.
FACIL.

ID	CALLSIGN	COMMUNITY OF LICENSE		ERP	MaxHAAT	Gr.B
22569	K06GP	YREKA	CA US	0.002	204	11
8289	K06GS	BIEGER, ETC.	CA US	0.010	703	31
56455	K06JJ	MEEKER, ETC.	CO US	0.011	467	26
14155	K06IQ	NEWBERRY SPRINGS	CA US	0.009	399	23
59129	K06HT	ELY	NV US	0.025	552	35
39357	K06JK	DAYTON	NV US	0.047	1130	55
51624	K06DJ	WOOD RIVER, ETC.	WY US	0.048	391	33
20407	K06AB	LONG CREEK	OR US	0.119	578	50
3615	K06JL	BAKER	CA US	0.057	707	47
3615	K06JL	BAKER	CA US	0.057	707	47
3615	K06JL	BAKER	CA US	0.057	707	47
56534	W06AP	MAGGIE VALLEY, ETC.	NC US	0.015	402	26
35319	K06IS	TOHATCHI	NM US	0.318	851	69
50715	K06JR	OROVILLE	WA US	0.003	367	16
22067	K06JU	HOWARD	MT US	0.180	91	23
23183	K06JS	EAST ELK CREEK	CO US	0.011	215	17
22556	K06KA	FORT JONES, ETC.	CA US	0.021	782	40
39359	K06KC	YERINGTON	NV US	0.027	614	37
39796	K06JX	MANLEY HOT SPRINGS	AK US	0.003		16
28239	K06ER	OXBOW	OR US	0.012	71	10
29168	K06KO	KANARRAVILLE, ETC.	UT US	0.026	404	29
28559	K06KE	INDIAN SPRINGS	NV US	0.005	185	13
69687	K06KD	AUSTIN	NV US	0.139	792	59
8657	K06JZ	MENDENHALL VALLEY,	AK US	0.047		32
23159	K06GW	DIVIDE CREEK, ETC.	CO US	0.011	908	37
51682	K06KB	DEL NORTE	CO US	0.126	114	23

REC Networks - MB Docket 04-233

Gr.B is the rounded Grade B contour for the purposes of this proceeding.
FACIL.

ID	CALLSIGN	COMMUNITY OF LICENSE		ERP	MaxHAAT	Gr.B
54181	K06KP	QUEMADO	NM US	0.011	75	10
53884	W06AJ	FRANKLIN, ETC.	NC US	0.467	924	75
56547	W06AN	SAPPHIRE VALLEY, ETC	NC US	0.163	937	64
64282	K06EL	FERNDAL, ETC.	MT US	0.002	345	15
53128	K06DK	POTTER VALLEY	CA US	0.135	750	57
25611	K06HN	GUNNISON	CO US	0.013	276	21
49626	K06LA	HEALY, ETC.	AK US	0.021		26
14126	K06KQ	MANHATTAN	NV US	0.021	368	27
37143	K06FR	LAYTONVILLE, ETC.	CA US	0.090	963	58
51625	K06KS	SOUTH FORK, ETC.	WY US	0.044	46	11
51618	K06KT	CLARKS FORK, ETC.	WY US	0.046	103	17
67408	K06KW	MANDERSON, ETC.	WY US	0.005	32	5
11221	K06KY	CIRCLE, ETC.	MT US	0.098	252	32
35726	K06FE	MILES CITY	MT US	0.794	96	33
71511	W06AR	HORNELL	NY US	0.105	278	34
35303	K06LE	TAOS	NM US	0.056	210	26
23238	K06EB	BRUSETT, ETC.	MT US	0.180	151	29
62827	K06LG	CHUATHBALUK	AK US	0.052		32
62529	K06LP	CIRCLE HOT SPRINGS	AK US	0.548		52
62824	K06LK	CLARKS POINT, ETC.	AK US	0.029		28
72949	K06LF	WINNETT	MT US	0.008	148	13
54924	K06KM	DUCKWATER, ETC.	NV US	0.024	198	20
49523	K06GR	WEED	CA US	0.001	2964	27
67444	K06LU	ROCK RIVER	WY US	0.005	180	13
71360	W06AW	SELMER	TN US	0.048	82	15
23197	K06LX	GLENWOOD SPRINGS	CO US	0.019	633	35

REC Networks - MB Docket 04-233

Gr.B is the rounded Grade B contour for the purposes of this proceeding.
FACIL.

ID	CALLSIGN	COMMUNITY OF LICENSE		ERP	MaxHAAT	Gr.B
70498	W06AY	LEBANON	KY US	0.070	90	18
70498	W06AY	LEBANON	KY US	0.070	90	18
70498	W06AY	LEBANON	KY US	0.070	90	24
70498	W06AY	LEBANON	KY US	0.070	90	24
72360	K06LZ	SALINA	KS US	0.019	72	12
47977	K06JC	CHADRON	NE US	0.133	156	27
69842	W06BC	MOUNT STERLING	KY US	0.018	106	13
13459	K06FZ	RED RIVER	NM US	0.053	324	31
313	K06ME	ABIQUIU	NM US	0.008	426	23
313	K06ME	ABIQUIU	NM US	0.008	426	23
313	K06ME	ABIQUIU	NM US	0.008	426	23
55904	K06LI	CHEMULT	OR US	0.067	664	47
65140	K06MG	SAN MATEO	NM US	0.006	439	21
49243	W06BD	PRINCETON	IN US	0.014	89	12
9027	WTAM-LP	TAMPA	FL US	0.133	148	27
51654	K06MB	INDIO	CA US	0.349	539	81
8268	K06LS	CHILOQUIN	OR US	0.008	291	19
8268	K06LS	CHILOQUIN	OR US	0.008	291	17
9263	K06KH	CASPER	WY US	0.162	842	61
9263	K06KH	CASPER	WY US	0.162	842	93
4446	K06MH	BEATTY	NV US	0.052	178	23
4446	K06MH	BEATTY	NV US	0.052	178	23
4446	K06MH	BEATTY	NV US	0.052	178	23
19380	K06MK	ELKO	NV US	0.054	408	35
54304	K06CT	OROVADA	NV US	0.114	555	48
25207	W06BH	PHENIX CITY, ETC.	AL US	0.060	188	25

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ID	CALLSIGN	COMMUNITY OF LICENSE		ERP	MaxHAAT	Gr.B
58872	K06MM	BLUFF	UT US	0.002	108	8
67437	K06GT	REDCLIFF	CO US	0.002	127	8
41279	K06KJ	COLLBRAN	CO US	0.004	119	10
5826	K06MQ	FINLEY POINT, ETC.	MT US	0.093	361	37
19413	K06HV	ELKTON	OR US	0.029	287	25
26336	WRNT-LP	HARTFORD	CT US	0.009	89	11
47991	K06KR	CRAWFORD	NE US	0.053	102	18
5480	K06MS	BLACK LAKE	NM US	0.007	133	12
5480	K06MS	BLACK LAKE	NM US	0.007	133	22
37523	K06DM	PANACA	NV US	0.104	895	58
59778	K06BQ	RICHFIELD, ETC.	UT US	0.052	1015	54
97070		WINDSOR	ON CA	0.560		52
97532	CHKCTV2	OLALLA	BC CA	0.005		18
97568	CH2369	STEWART	BC CA	0.010		21
97732	CBRT12	CARDSTON	AB CA	0.010		21
74388	K06HD	YOSEMITE VILLAGE	CA US	0.079	873	22
98218	CJWPTV2	WATERTON PARK	AB CA	0.001		12
25250	K06AP	GREER	AZ US	0.009	460	24
35274	K06AE	PRESCOTT	AZ US	0.030	690	41
62126	K06BO	ST. JOHNS	AZ US	0.216	209	35
28551	K06ET	BIG BEND, ETC.	CA US	0.003	275	14
59007	K06FA	HOPLAND	CA US	0.013	335	23
37194	K06EX	LEWISTON	CA US	0.007	386	21
24491	K06GZ	WHITMORE	CA US	0.001	607	17
67387	K06DA	ALMA	CO US	0.014	532	29

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ID	CALLSIGN	COMMUNITY OF LICENSE		ERP	MaxHAAT	Gr.B
56704	K06HU	ASPEN	CO US	0.012	504	27
25641	K06AM	CIMARRON	CO US	0.002	485	17
48592	K06JF	CORTEZ	CO US	0.056	121	20
43351	K06CI	CRAIG	CO US	0.008	103	11
11447	DK06JE	CRIPPLE CREEK	CO US	0.005	675	26
74330	K06CE	HAYDEN	CO US	0.072	258	30
11491	K06BI	MANITOU SPRINGS	CO US	0.001	188	10
70595	K06GQ	NORWOOD	CO US	0.143	5717	73
74338	K06CH	OAK CREEK, ETC.	CO US	0.002	265	12
70591	K06HZ	PAONIA	CO US	0.064	390	36
56400	K06IX	RANGELY	CO US	0.082	298	33
14660	K06CK	REDSTONE, ETC.	CO US	0.113	525	46
10093	K06HF	SALIDA, ETC.	CO US	0.021	868	42
3582	K06HW	SOUTHWEST BACA COUN	CO US	0.136	199	30
3582	K06HW	SOUTHWEST BACA COUN	CO US	0.136	199	30
3582	K06HW	SOUTHWEST BACA COUN	CO US	0.136	199	30
74328	K06CF	STEAMBOAT SPRINGS	CO US	0.002	442	16
53894	W06AE	CLAYTON, ETC.	GA US	0.007	613	27
53167	K06AA	BROADUS, ETC.	MT US	0.024	166	19
53167	K06AA	BROADUS, ETC.	MT US	0.024	166	39
13678	K06IL	CONRAD	MT US	0.013	137	14
2826	K06FN	DELL	MT US	0.058	1052	56
2826	K06FN	DELL	MT US	0.058	1052	56
2826	K06FN	DELL	MT US	0.058	1052	56
24540	K06FU	RYEGATE	MT US	0.001	120	8
52500	K06FI	SACO, ETC.	MT US	0.003	134	9

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ID	CALLSIGN	COMMUNITY OF LICENSE		ERP	MaxHAAT	Gr.B
73376	K06AV	WOLF POINT	MT US	0.006	82	9
7108	K06EY	BROKEN BOW	NE US	0.053	76	15
70225	K06GM	VERDIGRE	NE US	0.013	72	11
2701	K06FQ	COOPER CANYON, ETC.	NV US	0.188	450	48
2701	K06FQ	COOPER CANYON, ETC.	NV US	0.188	450	48
2701	K06FQ	COOPER CANYON, ETC.	NV US	0.188	450	48
48793	K06IT	MERCURY, ETC.	NV US	0.101	362	38
48794	K06IU	MERCURY, ETC.	NV US	0.180	472	48
71061	K06GB	VERDI	NV US	0.114	949	60
13547	K06JB	CONCHAS DAM, ETC.	NM US	0.011	320	21
35307	K06CU	GRANTS, ETC.	NM US	0.005	246	15
27234	K06DX	HILLSBORO	NM US	0.005	284	16
43752	K06HX	MORA	NM US	0.004	718	25
55190	K06DB	RATON, ETC.	NM US	0.005	515	22
70218	K06EM	ROY	NM US	0.013	215	18
42680	K06AW	SAN LORENZO, ETC.	NM US	0.005	216	14
69934	K06FV	VERMEJO PARK	NM US	0.003	367	16
70695	K06BN	WAGON MOUND	NM US	0.028	308	26
56535	W06AQ	BAT CAVE, ETC.	NC US	0.015	577	31
53891	W06AI	MARION	NC US	0.003	214	13
56544	W06AL	OTEEN/WARREN	NC US	0.016	219	19
56536	W06AD	SPRUCE PINE	NC US	0.006	300	18
34402	K06IO	SCOTTSBURG	OR US	0.056	268	29
51948	K06JN	SEVERANCE RANCH, ET	OR US	0.019	-52	7
59456	K06HG	PINE RIDGE	SD US	0.009	37	7
9712	K06JA	CEDAR CANYON	UT US	0.008	962	35

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ID	CALLSIGN	COMMUNITY OF LICENSE		ERP	MaxHAAT	Gr.B
59785	K06FL	FISH LAKE RESORT	UT US	0.018	553	32
63761	K06IM	HENEFER, ETC.	UT US	0.005	192	13
59772	K06IG	KOOSHAREM	UT US	0.001	500	15
14159	K06BS	LOA, ETC.	UT US	0.008	308	19
38361	K06FM	LONG VALLEY JUNCTIO	UT US	0.033	278	26
42409	K06DH	SCIPPIO,HOLDEN	UT US	0.027	379	29
8738	K06DR	SPRING GLEN, ETC.	UT US	0.028	978	48
19362	K06BR	ENCAMPMENT	WY US	0.095	258	32
60161	K06AT	SHERIDAN, ETC.	WY US	0.232	66	21
39756	K06AD	YELLOWSTONE NATIONA	WY US	0.046	734	46
21492	KZND-LP	ANCHORAGE	AK US	0.920		56
57999	K06MY	RIO GRANDE CITY	TX US	0.040	57	12
125380	K06NN	GOLDFIELD	NV US	0.022	278	24
125524	NEW	AMARILLO	TX US	3.000	139	50
129095	NEW	ST GEORGE	UT US	0.080	76	17
129113	NEW	TEHACHAPI	CA US	3.000	228	59
129430	NEW	FAIRBANKS	AK US	3.000		69
129850	NEW	CALIENTE	CA US	3.000	350	69
130302	NEW	HAWTHORNE	NV US	0.050	-416	10
130642	NEW	MERIDIAN	MS US	1.000	214	48
57860	W06BU	WHITING	WI US	0.007	105	11
131184	NEW	JOHANNESBURG	CA US	0.500	527	62
125133	K06NF	WILLMAR	MN US	1.000	165	44
127802	WMTO-LP	WANCHESE	NC US	0.600	119	34
131240	NEW	JOSHUA TREE	CA US	0.500	355	51
129591	W06BX	TUPELO	MS US	0.350	224	40
126929	K06NG	SARGENTS	CO US	0.003	270	14

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ID	CALLSIGN	COMMUNITY OF LICENSE		ERP	MaxHAAT	Gr.B
127744	K06NM	OLJETO	UT US	0.004	193	13
130170	K06NR	NAVAJO MTN.SCH.,ETC	UT US	0.045	435	35
127733	K06NK	MEXICAN HAT	UT US	0.004	-71	5
131162	KNJO-LP	HOLBROOK	AZ US	0.800	121	37
125601	NEW	PORT LAVACA	TX US	3.000	27	26
129153	K06NI	THE DALLIES	OR US	0.250	807	65
8268	K06LS	CHILOQUIN	OR US	0.500	-1	19
8268	K06LS	CHILOQUIN	OR US	0.500	-1	17
70498	W06AY	LEBANON	KY US	0.277	44	18
70498	W06AY	LEBANON	KY US	0.277	44	18
70498	W06AY	LEBANON	KY US	0.277	44	24
70498	W06AY	LEBANON	KY US	0.277	44	24
53167	K06AA	BROADUS, ETC.	MT US	0.390	196	19
53167	K06AA	BROADUS, ETC.	MT US	0.390	196	39
129950	NEW	PEOA AND OAKLEY	UT US	0.040	332	30
129950	NEW	PEOA AND OAKLEY	UT US	0.040	332	30
128382	NEW	VERNAL	UT US	0.200	884	65
9263	K06KH	CASPER	WY US	3.000	876	61
9263	K06KH	CASPER	WY US	3.000	876	93
130089	NEW	AMARILLO	TX US	3.000	215	58
127370	K06NH	NOME	AK US	3.000		69
70498	W06AY	LEBANON	KY US	1.000	44	18
70498	W06AY	LEBANON	KY US	1.000	44	18
70498	W06AY	LEBANON	KY US	1.000	44	24
70498	W06AY	LEBANON	KY US	1.000	44	24
130439	NEW	SALISBURY	MD US	0.500	207	42

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ID	CALLSIGN	COMMUNITY OF LICENSE		ERP	MaxHAAT	Gr.B
125653	K06NW	ALAMOGORDO	NM US	3.000	149	52
21490	K06MF	KENAI, ETC.	AK US	1.440		61
63753	K06JH	WANSHIP	UT US	0.043	95	16
130452	NEW	ERIE	PA US	3.000	-63	26
130043	NEW	REDMOND	OR US	2.500	746	88
70498	W06AY	LEBANON	KY US	1.000	44	18
70498	W06AY	LEBANON	KY US	1.000	44	18
70498	W06AY	LEBANON	KY US	1.000	44	24
70498	W06AY	LEBANON	KY US	1.000	44	24
129139	K06OA	EAU CLAIRE	WI US	0.900	200	46
130881	K06NT	DOLORES	CO US	0.005	258	16
51654	K06MB	INDIO	CA US	3.000	538	81
21710	K06NV	WHITE SULPHUR SPRIN	MT US	0.065	341	34
63149	K06MU	BIG BEAR LAKE	CA US	1.000	488	66
131127	W06BY	DALTON	GA US	2.500	59	34
125561	K06NX	HANNA & TABIONA	UT US	0.005	155	12
131005	K06NC	HANAMAULU	HI US	3.000	414	73
125478	K06NQ	WALKER LAKE	NV US	0.400	93	28
129224	W06CC	BINGHAMTON	NY US	0.016	45	9
129883	W06CA	WAUSAU	WI US	0.050	273	28
128718	NEW	BAKERSFIELD	CA US	3.000	169	54
125366	K06NZ	GABBS	NV US	0.057	341	33
131101	NEW	MT. OLIVE	VA US	3.000	188	56
5480	K06MS	BLACK LAKE	NM US	0.077	132	12
5480	K06MS	BLACK LAKE	NM US	0.077	132	22
51654	K06MB	INDIO	CA US	3.000	538	81

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ID	CALLSIGN	COMMUNITY OF LICENSE		ERP	MaxHAAT	Gr.B
125819	W06CD	ELMIRA	NY US	0.250	280	41
130112	NEW	CANE BEDS, AZ/HILLDA	UT US	0.090	949	58
129950	NEW	PEOA AND OAKLEY	UT US	0.040	332	30
129950	NEW	PEOA AND OAKLEY	UT US	0.040	332	30
129734	NEW	LUBBOCK	TX US	0.500	237	44
128750	K06NY	RYNDON	NV US	0.062	18	10

NOTE: Stations in Alaska did not have Maximum HAAT in CDBS. For this study, we will assume them at 150m HAAT.